

1990

## C.A.D.R.E.

Illinois Mathematics and Science Academy

Follow this and additional works at: [http://digitalcommons.imsa.edu/docs\\_1990\\_2000](http://digitalcommons.imsa.edu/docs_1990_2000)



Part of the [Education Commons](#)

---

### Recommended Citation

Illinois Mathematics and Science Academy, "C.A.D.R.E." (1990). *1990-2000 Documents*. Paper 11.  
[http://digitalcommons.imsa.edu/docs\\_1990\\_2000/11](http://digitalcommons.imsa.edu/docs_1990_2000/11)

This Report is brought to you for free and open access by the 1990-2000 at DigitalCommons@IMSA. It has been accepted for inclusion in 1990-2000 Documents by an authorized administrator of DigitalCommons@IMSA. For more information, please contact [pgarrett@imsa.edu](mailto:pgarrett@imsa.edu), [jean@imsa.edu](mailto:jean@imsa.edu).

**\*C**  
**A** *REER*

**D** EVELOPMENT

**R** EINFORCING

**E** XCELLENCE

**Illinois Mathematics and Science Academy C. A. D. R. E.\*: A Performance-  
Based Recruitment, Selection, and Retention System for Faculty**

## **IMSA C.A.D.R.E.\***

### **\*CAREER DEVELOPMENT REINFORCING EXCELLENCE**

#### **I. INTRODUCTION and PURPOSE**

##### **Introduction:**

The IMSA C.A.D.R.E. program, a performance-based recruitment, selection, retention and professional development system for faculty, is designed to fulfill three major objectives:

- 1) to recruit and select the most talented faculty available from across the nation,
- 2) to recognize the outstanding performance and sustained commitment and contribution of faculty to the IMSA community, and
- 3) to facilitate the professional and personal growth and development of exemplary faculty.

It is based on the framework of a rigorous recruitment and selection process that effectively recommends the employment of outstanding faculty.

The 2 (or 3 year) initial assessment period is designed to provide the Academy sufficient time to assess the faculty member's response to and effectiveness in the IMSA community, and to provide the faculty member time to assess the appropriateness of his/her skills and beliefs to the IMSA mission.

The professional enhancement process is designed to provide a framework for faculty to further develop and enhance their knowledge and skills by developing an individualized and goal-focused development plan, the components and criteria of which are mutually established by the faculty member and the Team Leader. This program is evolutionary in its design and implementation. As the Board of Trustees, administration, and faculty annually review this program, program modification and/or revisions may be recommended. Professional development and enhancement are dynamic processes and must be viewed within the context of change and adaptation to institutional, professional, and personal needs.

## **II. PREMISES**

- A. The central focus of the Academy is on exemplary teaching. The Academy requires teachers who are visionary; who know the constructs, concepts, skills and "habits of mind" of their discipline, and who can motivate and excite young learners.
- \* B. Teaching is a complex task that best occurs in context.
- \* C. Professional teachers have a store of theoretical as well as practical knowledge that supports the decisions they make.
- D. The Academy expects commitment to and encourages demonstration of creativity, innovation, and risk-taking in faculty.

\* BioTAP: A New Approach to Biology Teacher Assessment, Angelo Collins, Stanford University, 3/17/89

- E. Creativity, innovation, and risk requires curricular, instructional, and assessment experimentation that typically deviates from traditional modes, and results in substantive institutional restructuring of curricular content, delivery, and assessment.
- F. Substantive restructuring of all dimensions of an educational institution requires sustained and creative effort over long periods of time.
- G. An environment must exist within the Academy that fosters and promotes constant innovation and flexibility; this environment is best characterized by high expectations, a vision of what the final goal "looks like," and a sense of security and trust in the organization's ability to accept failures throughout the creative process.
- H. Faculty are expected to be experts in their specific academic discipline (minimum of Master's degree).
- I. Faculty are expected to provide nurturing to young, developing adolescents.
- J. Faculty are expected to support and enhance the mission of the Academy and his/her team by serving as an active and participative member of the Academy's community.

- K. Faculty are expected to actively foster the research and development mission of IMSA, and to facilitate the improvement of mathematics and science curriculum and instruction in Illinois and throughout the nation.
- L. The Academy is a laboratory for exemplary instruction of gifted students, and the development, testing and dissemination of innovative curriculum and instruction in mathematics, science, humanities, and the arts. As such, it seeks to employ and retain only those individuals capable of and committed to facilitation of the institution's mission of excellence and innovation.

### **III. BELIEFS**

We believe that:

- A. Good teachers want to improve their practice and are constantly involved in a process of self-evaluation.
- B. A system of professional development must recognize and support conscientious and talented teachers.
- C. Creativity and risk are best cultivated in an environment that makes a long-term commitment to innovation.



- D. A system of professional development must respect and promote the dedication and professionalism of the Academy staff.
- E. A system of professional development must promote excellence and high standards of performance, congruent with the mission and goals of the Academy.
- F. The ultimate aim of a comprehensive professional development program is to identify, support, enhance, and recognize professional practice which improves student reasoning and problem-solving and promotes student ability to think reflectively.

**IV. RECRUITMENT PROCESS** (Components and Timeframes may be modified as appropriate)

A. Personnel Recruitment

1. Conferences

a. National

- 1) Schedule Information Booth and/or Hospitality Suite
- 2) Bring Materials for Distribution; Print & Video

- 3) Advertise Job Vacancies on Bulletin Board
- 4) Informal Meetings with IMSA Staff
- 5) Formal Interview by Faculty/Staff Present (optional)

b. State

- 1) Schedule Information Booth and/or Hospitality Suite
- 2) Bring Materials for Distribution: Print & Video
- 3) Advertise Job Vacancies on Bulletin Board
- 4) Informal Meeting with IMSA Staff
- 5) Formal Interview by Faculty/Staff Present (optional)

2. Advertisements

- a. Media - Newspaper - (See Attached)
- b. Professional Journals
- c. Professional Organization Publications
- d. University Placement Offices
- e. University Department Chairpersons
- f. University Affiliates



3. National Advisory Board - Send list of vacancies seeking recommendations
4. National Leaders of Professional Organizations - Send list of vacancies seeking recommendations
5. State Leaders of Professional Organizations - Send list of vacancies seeking recommendations
6. Presidential Awardees - National and State Level Send list of vacancies seeking recommendations, and actively recruit Presidential Awardees
7. Regional Laboratories - Send list of vacancies
8. Individual Invitations - to state and nationally renowned faculty
9. IMSA Faculty and Staff - seeking recommendations

V. **SELECTION PROCESS** The purpose of this process is to recruit and select outstanding staff; it is designed to be as comprehensive as possible while allowing for flexibility in the selection, implementation, and sequence of its components and timelines.

Following an inquiry by a prospective candidate and/or the Academy, the following occurs:

A. Academy Forwards Application Packet Consisting Of:

1. Application Form (to be revised)
2. Position Description
3. IMSA Brochure
4. Curriculum Guide
5. Student Learner Outcomes
6. Assessment Plan
7. IMSA Strategic Plan Document
8. List of Exemplary Teaching Behaviors
9. C.A.D.R.E. Program Outline
10. Personnel Protocols (Benefits)

B. Candidate Returns Application Materials Consisting of the Following:

1. Completed Application
2. Response to Specific Questions and Documentation of Evidence
  - a. What have you done in education (teaching, curriculum development, etc.) that is remarkable?
  - b. Attach evidence of the following:(example: Portfolio)
    - 1) Subject matter expertise

- 2) Ability to Develop a Concept-Centered Curriculum (This can include a course outline, curriculum unit, or a lesson sequence)
- 3) Ability to Develop "Apprentice Investigation" in Students through achievement of Academy's Student Learner Outcomes (Example: Sample laboratory lesson)
- 4) Ability to Assess Student Learner Outcomes with Multiple Strategies (Example: Sample test items, graded assignments, use of a variety of evaluation methods)
- 5) Ability to Facilitate Discovery in students through interconnecting interdisciplinary constructs and enhancing student reasoning, problem-solving, and reflective thinking (Example: Videotape, Teaching sequence, list of questions posed to students)

- 6) Ability to work in "outreach" capacity and programs with adult learners, (faculty, administrators, and other school leaders) to improve mathematics, science, and technology education. (Example: Documentation of experiences)

3. Transcripts and Current Vita

4. Videotape (Optional at request of IMSA)

C. IMSA Staff Application Review (Emphasis on knowledge, skills, and innovative practices in curriculum, teaching, and learner assessment)

1. Level I Review

- a. Prescreening of application by Team Leader
- b. Preliminary reference screening (Could include candidate's supervisor or others)
- c. If preliminary application and reference screening merit continued review, transcripts, vita and essays are screened
- d. Recommendation to Level II Review

2. Level II Review

- a. Screening of transcripts, vita, references, essays, and video tape, (optional), by Team representative(s) in consultation with Director of Academic Programs.
  - b. Recommendation to Level III Review
3. Level III Review
- a. Interview by Team Leader and Team Representative(s). Interview should focus on applicant providing evidence and documentation of the following:
    - 1) Evidence of: (Example: Portfolio)
      - a) Subject Matter Expertise
      - b) Ability to Develop a Concept-Centered Curriculum
      - c) Ability to Develop Apprentice Investigation in students through achievement of Academy's Student Learner Outcomes
      - d) Ability to Assess Student Learner Outcomes with Multiple Strategies
      - e) Ability to Facilitate Discovery in students through interconnecting interdisciplinary constructs and enhancing student reasoning, problem-solving, and reflective thinking

- f) Ability to work in "outreach" capacity/programs with adult learners, (faculty administrators, and other school leaders), to improve mathematics, science, and technology education

2) Willingness to make professional contributions

- a) Contribution to Team and IMSA Community
- b) Outreach
- c) Contributions to Profession
- d) Mentorship
- e) Curriculum Development
- f) Research (Student and Individual)

b. Observation of Teaching Episode - Team

Leader/Other Appropriate Personnel (All observers will use criteria of Exemplary Teaching Behaviors (attached). At the option of IMSA, this may include one or more of the following:

- 1) Invite candidate to IMSA to teach a class(es) in his/her discipline and to observe other IMSA classes.
- 2) Observation in candidate's home-school site.



- 3) Review of applicant's videotape.
  - c. Recommendation to Level IV Review.
4. Level IV Review
- a. Interview by Director of Academic Programs
    - 1) Curriculum: Evidence of Ability to Develop a Concept-Centered Curriculum
    - 2) Student Learner Outcomes: Evidence of Ability to Develop Apprentice Investigation
    - 3) Student Assessment: Evidence of Ability to Assess Student Learner Outcomes' with Multiple Strategies
    - 4) Teaching: Evidence of Teaching Expertise Facilitating Discovery
    - 5) Outreach Evidence of ability to work in "outreach" capacity/programs with adult learners, (faculty, administrators, and other school leaders), to improve mathematics, science, and technology education
  - b. Interview by Principal
    - 1) Pedagogical Skills: Evidence of Ability to Facilitate Discovery

- 2) Sensitivity to Social/Emotional Needs of Students: Evidence of Ability to Nurture Adolescent Learners
  - 3) Parent Communication: Evidence of Ability to communicate effectively with parents
  - 4) Team Participation and Contributions to Team: Evidence of Ability to Contribute to Team goals
- c. Meeting of Team Leader, Director of Academic Programs and Principal prior to determining advancement to Director (Meeting chaired by Director of Academic Programs)
  - d. Reference Screening Coordinated by Director of Academic Programs
    - 1) Phone interview with references listed by candidate, as well as other state or nationally noted experts. References are asked to provide evidence of the following:
      - a) Subject Matter Expertise
      - b) Ability to Develop a Concept-Centered Curriculum
      - c) Ability to Develop Apprentice Investigation in students through achievement of Academy's Student Learner Outcomes

- d) Ability to Assess Student Learner Outcomes with Multiple Strategies
  - e) Ability to Facilitate Discovery in students through interconnecting interdisciplinary constructs and enhancing student reasoning, problem-solving, and reflective thinking
  - f) Ability to work in "outreach" capacity/programs with adult learners, (faculty, administrators, and other school leaders) to improve mathematics, science, and technology education
- e. Recommendation to Level V Review

5. Level V Review

- a. Interview by Director
  - 1) Mission: Evidence of Commitment
  - 2) Beliefs: Evidence of Congruity
  - 3) Organizational Culture: Evidence of Understanding and Ability to Promote and Enhance

- 4) Strategic Parameters: Evidence of  
Congruity

## **VI. EMPLOYMENT RECOMMENDATION PROCESS**

- A. Meeting of Appropriate Staff to finalize Recommendation  
(Example: Team Leader, Director of Academic Programs,  
Principal, and Director)
- B. Director Recommends Employment to Board of Trustees

## **VII. ORIENTATION**

- A. Beginning of Year
  1. Process: Designated Period(s) Prior to Beginning of  
School (New faculty must complete orientation before  
beginning work at the Academy)
  2. Program Contents
    - a. IMSA Community
      - 1). IMSA Historical Overview
      - 2) IMSA Culture
        - a) Beliefs
        - b) Parameters
        - c) Professional Expectations
      - 3) IMSA Strategic Plan.
    - b. Academy Student Profile and Profile of Gifted  
Learners

- c. IMSA Student Learner Outcomes and Assessment Strategies
- d. IMSA Curriculum - Concept Centered
- e. IMSA Teaching Expectations: Facilitating Discovery
- f. IMSA Team Participation Expectations
- g. IMSA Community Participation Expectations
- h. IMSA Alliance Program (Outreach) Expectations

**B. Throughout the Year**

- 1) Process: Monthly Inservice
- 2) Program Content: Selected Issues Recommended by Team Leader, team members and/or appropriate administrator

**VIII. INSTRUCTIONAL ASSESSMENT PROCESS**

**A. First Year - Assessment of Teaching , Curriculum, Learner Outcomes**

- 1. Faculty Peer (Mentor/Coach) assigned to each new faculty member. Team Leader and Faculty/Mentor/Coach work with new faculty member

on curricular issues, instructional expectations, learner outcomes, and adjustment to the Academy environment.

2. Dialogue and/or Instructional Visitation(s) by Team Leader and Mentor to provide feedback and assistance.
3. First Formative Team Leader Instructional Observation and Student Survey made by November 15 - Following each Student Survey, the Team Leader will review the survey with the faculty member and discuss implications for curriculum, instruction, and student assessment.
4. Second Formative Observation by Team Leader and/or additional appropriate personnel, and student survey completed by January 15.
5. Third Formative Observation by Team Leader and/or additional appropriate personnel, and student survey completed by March 15.
6. Additional Formative Observation(s) and or student surveys as appropriate.
7. Summative Evaluation completed by Team Leader by April 15. (Summative evaluation involves review of written evidence for:



- a) Curriculum: Evidence of Ability to Develop a Concept-Centered Curriculum
- b) Student Learner Outcomes: Evidence of Ability to Develop Apprentice Investigation
- c) Student Assessment: Evidence of Ability to Assess Student Learner Outcomes' with Multiple Strategies
- d) Teaching: Evidence of Teaching Expertise Facilitating Discovery

8. Reinvitation Recommendation Process

- a. Team Leader makes recommendation to Director of Academic Programs, and Principal
- b. Meeting of Team Leader, Director of Academic Programs, and Principal
- c. Review documentation of formative instructional observation and summative evaluation (Written evidence of criteria specified).
- d. Recommendation Presented to Director to include one of the following:
  - 1) Offer second 1-year contract
  - 2) Offer 1-year "conditional" contract (specific concern(s) noted)
  - 3) Not reinvite
- e. Recommendation Presented by Director to Board of Trustees

B. Second Year - Assessment of Teaching, Curriculum, Learner Outcomes and Contributions to his/her IMSA Team and community

1. Continued dialogue with Team Leader on instruction and contributions to the institution.
2. Minimum of 2 Formative instructional observations by Team Leader and/or additional appropriate personnel; one prior to November 15, and one prior to March 15.
3. Student Survey completed prior to conclusion of first semester.
4. Summative Evaluation completed by Team Leader by April 15, to include review of written evidence of:
  - a) Curriculum: Evidence of Ability to Develop a Concept-Centered Curriculum
  - b) Student Learner Outcomes: Evidence of Ability to Develop Apprentice Investigation
  - c) Student Assessment: Evidence of Ability to Assess Student Learner Outcomes' with Multiple Strategies
  - d) Teaching: Evidence of Teaching Expertise Facilitating Discovery
  - e) Outreach Ability to work in "outreach" capacity/programs with adult learners, (faculty, administrators, and other school leaders), to

improve mathematics, science, and technology  
education

5. Reinvitation Recommendation Process

- a. Team Leader makes initial recommendation to Director of Academic Programs, Principal, and Director
- b. Meeting of Team Leader, Director of Academic Programs, Principal, and Director
- c. Review documentation of formative instructional observations and summative evaluation (written evidence of criteria specified).
- d. Recommendation to include one of the following:
  - 1) Offer 2-year contract
  - 2) Place on 1-year Extended Professional Developmental Plan (Specific Concern(s) Noted)
  - 3) Do not reinvite
- e. Recommendation Presented by Director of the Board of Trustees

**IX. ONE YEAR EXTENDED PROFESSIONAL DEVELOPMENT PLAN**

- A. Evaluation and assessment focused on specific area(s) of concern, identified by Team Leader and other appropriate personnel.

- B. Behavior expectations clarified and stipulated in goal development
- C. Continued instructional assistance by mentor and Team Leader
- D. Minimum of 3 Formative Observations by Team Leader and/or additional appropriate personnel, and a minimum of 2 student surveys.
- E. Summative Evaluation completed by Team Leader by April 15; to include evidence of:
  - 1) Curriculum: Evidence of Ability to Develop Concept-Centered Curriculum
  - 2) Student Learner Outcomes: Evidence of Ability to Develop Apprentice Investigation
  - 3) Student Assessment: Evidence of Ability to Assess Student Learner Outcomes' with Multiple Strategies
  - 4) Teaching: Evidence of Teaching Expertise Facilitating Discovery
  - 5) Outreach Ability to work in "outreach" capacity/programs with adult learners, (faculty, administrators, and other school leaders), to improve mathematics, science, and technology education
- F. Reinvitation Recommendation Based Upon Assessment of Criteria

- 1) Team Leader makes initial recommendation to Director of Academic Programs, Principal, and Director
- 2) Joint meeting of Team Leader, Director of Academic Programs, Principal, and Director.
- 3) Review documentation of formative instructional observations and summative evaluation.
- 4) Recommendation to include one of the following:
  - a) Offer 2-year contract
  - b). Do not reinvite
- 5) Recommendation presented by Director to Board of Trustees

X. **PROFESSIONAL ENHANCEMENT PROGRAM** [Designed to be maximally flexible and individualized to meet the needs of individual faculty. Plans can individual and/or cooperative (Between faculty and teams)]

A. **FACULTY ON 2-YEAR CONTRACT**

1. Professional and Personal Enhancement Plan (Goal Setting) Approved by Team Leader and Director of Academic Programs. The components of the enhancement plan may be modified by mutual agreement of the faculty member and Team Leader. Plans to Include the Following Components:
  - a. Instructional Goal(s) derived from IMSA Model (To be Developed) on enhancing student cognition: (Faculty member and Team Leader



establish criteria for and means of evaluating;  
may include informal observation on specific  
teaching behaviors)

- b. One goal relating to Concept-Centered Curriculum, or Student Learner Outcomes and/or Assessment
  - c. One goal relating to Contributions to IMSA Community and Team, or Contributions to Profession (includes Outreach)
  - d. Personal Goals
- 2. Student Survey prior to end of first semester
  - 3. Optional Formative Observation(s) focusing on specific area(s) mutually determined by faculty member and Team Leader
  - 4. Summative Evaluation completed by Team Leader by April 15th each year; (to include review of written evidence of goal accomplishment).



## 5. Contract Recommendation Process

- a. Team Leader makes initial recommendation to Director of Academic Programs, Principal, and Director in Spring of 2nd year.
- b. Joint meeting of Team Leader, Director of Academic Programs, Principal, and Director.
- c. Review summative evaluation
- d. Recommendation to include one of the following:
  - 1) Two-year Rollover Contract
  - 2) Do not reinvite
- e. Recommendation by Director to Board of Trustees  
  
(In extenuating circumstances, a One-year extended professional development plan may be considered.)

## B. FACULTY ON 2-YEAR ROLLOVER CONTRACT

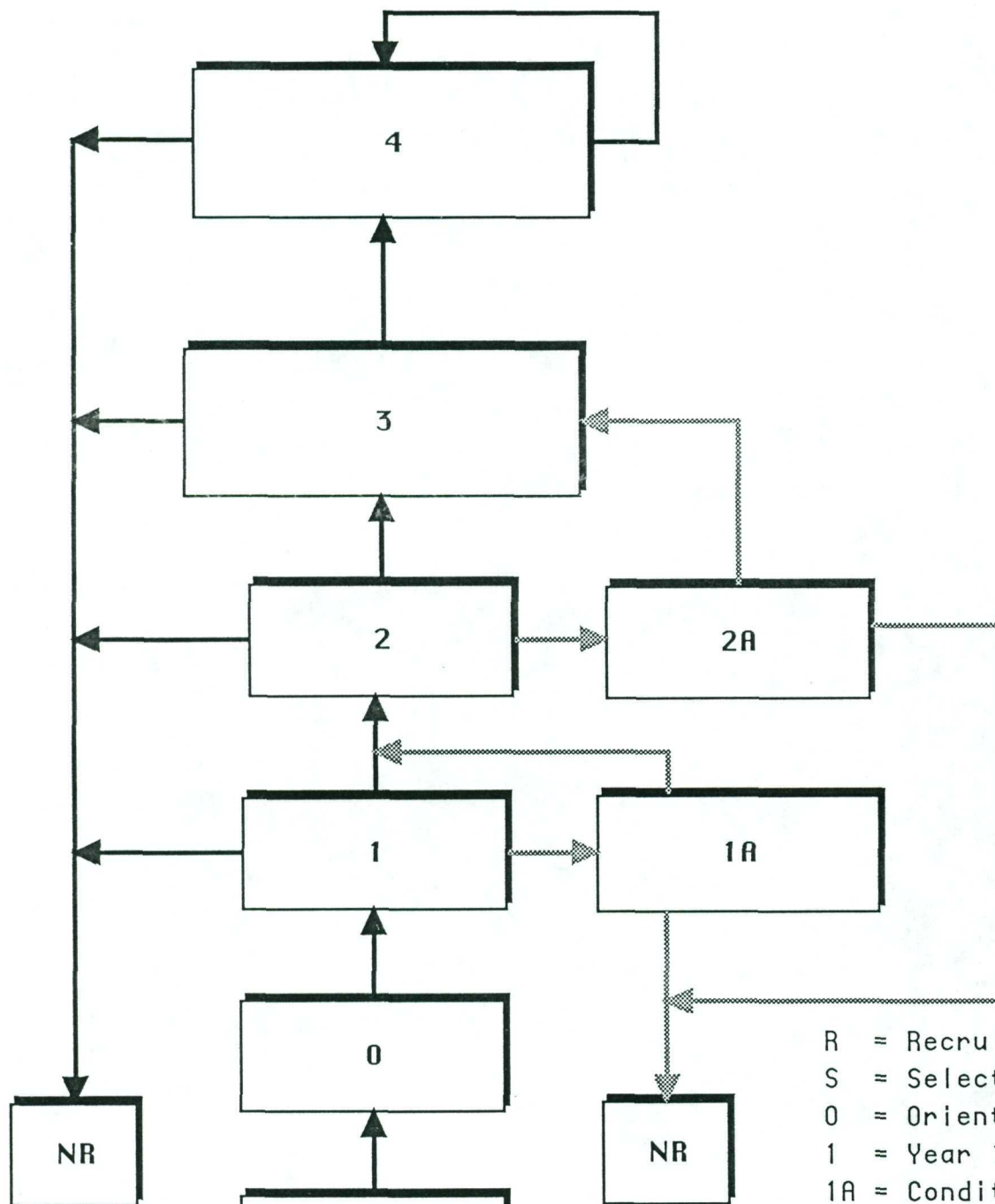
1. Professional and Personal Enhancement Plan (Goal Setting) Approved by Team Leader and Director of Academic Programs. The components of the enhancement plan may be modified by mutual agreement of the faculty member and Team Leader.  
Plans to Include the Following Components:

- a. Instructional Goals derived from IMSA Model  
(To be Developed) on enhancing student  
cognition: (Faculty member and Team Leader  
establish criteria for and means of evaluating;  
may include informal observation on specific  
teaching behaviors)
  - b. One goal relating to Concept-Centered  
Curriculum, or Student Learner Outcomes  
and/or Assessment
  - c. One goal relating to Contributions to IMSA  
Community and Team, or Contributions to  
Profession (includes Outreach)
  - d. Personal Goals
2. Student Survey prior to end of first semester
  3. Optional Formative Observation(s) focusing on specific  
area(s) mutually determined by faculty member and  
Team Leader
  4. Summative Evaluation completed by Team Leader by  
April 15th of first year

## 5. Contract Recommendation Process

- a. Team Leader makes initial recommendation to Director of Academic Programs, Principal, and Director in spring of 1st year.
- b. Joint meeting of Team Leader, Director of Academic Programs, Principal, and Director.
- c. Review summative evaluation
- d. Recommendation to include one of the following:
  - 1) Two-year rollover contract extension
  - 2) Non-extension of Contract
- e. Recommendation by Director to Board of Trustees  
  
(In extenuating circumstances, a One-year extended professional development plan may be considered.)

# CADRE DIAGRAM



CA = Career  
D = Development  
R = Reinforcing  
E = Excellence

R = Recruitment  
 S = Selection  
 0 = Orientation  
 1 = Year 1  
 1A = Conditional Contract  
 2 = Year 2  
 2A = One Year Extended Development Plan  
 3 = 2 Year Contract  
 4 = 2 Year Roll Over Contract  
 NR = Non Reinvitation